

Docket No.: 0425-0821P
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Tadayuki SUZUKI et al.

Application No.: 09/744,678

Confirmation No.: 003254

Filed: April 10, 2001

Art Unit: 1616

For: FRESHNESS-KEEPING AGENT FOR
PLANTS

Examiner: A. N. Pryor

DECLARATION UNDER 37 C.F.R. § 1.132

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Tadayuki SUZUKI, do declare and say as follows:

1. I am a co-inventor of above-identified application.
2. I have read the Final Office Action dated January 22, 2007 in the above-identified application and understand its contents.
3. As a co-inventor, I have read and understand the current set of claims and the present specification of the above-identified application.
4. I have carried out additional tests and procedures, and thus obtained results of which are described below. Additional examples and comparative examples were carried out that are similar to Example 2 of the instant application, as well as being the same way as shown in the Declaration (under 37 C.F.R. § 1.132) previously filed on March 28, 2002 (signed by

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Declarant on March 11, 2002), except the effective component (A) is as shown in the Tables below.

5. The test component (A) is the sugar-based fatty acid amide, as disclosed in the specification of the present application at page 16, and is tested with one of each of the components (B)-(F). It is noted that the experimental results due to the combination of (A) with one of (B)-(F) according to the claimed invention is superior and unexpected.

Table 1: Combination of (A) amide with (B) sugar

The number of days for rose being preserved

| | | Concentration of Sugar-based fatty acid amide (% by weight) | | | | |
|--|-----|---|--------|-------|------|-----|
| | | 0 | 0.0001 | 0.001 | 0.01 | 0.1 |
| Concentration of the sucrose (% by weight) | 0 | 3 | 3 | 4 | 4 | 3 |
| | 0.1 | 3 | 7 | 7 | 8 | 7 |
| | 0.5 | 4 | 8 | 8 | 9 | 8 |
| | 1 | 5 | 8 | 10 | 10 | 9 |
| | 2 | 5 | 9 | 12 | 11 | 10 |
| | 5 | 6 | 9 | 11 | 11 | 9 |
| | 10 | 3 | 8 | 10 | 9 | 8 |

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Table 2: Combination of (A) amide with (C) plant hormone

The number of days for rose being preserved

| | | Concentration of Sugar-based fatty acid amide (% by weight) | | | | |
|---|---------|---|--------|-------|------|-----|
| | | 0 | 0.0001 | 0.001 | 0.01 | 0.1 |
| Concentration of the gibberellin (GA3) (% by weight) | 0 | 3 | 3 | 4 | 4 | 3 |
| | 0.00001 | 3 | 7 | 8 | 9 | 9 |
| | 0.0001 | 3 | 8 | 9 | 9 | 9 |
| | 0.001 | 4 | 9 | 10 | 10 | 8 |
| | 0.01 | 2 | 8 | 9 | 9 | 7 |
| | 0.1 | 1 | 7 | 8 | 8 | 7 |
| | 0.5 | 1 | 7 | 7 | 7 | 7 |

Table 3: Combination of (A) amide with (D) aging inhibitor

The number of days for rose being preserved

| | | Concentration of Sugar-based fatty acid amide (% by weight) | | | | |
|--|--------|---|--------|-------|------|-----|
| | | 0 | 0.0001 | 0.001 | 0.01 | 0.1 |
| Concentration of the silver thiosulfate (% by weight) | 0 | 3 | 3 | 4 | 4 | 3 |
| | 0.0001 | 3 | 7 | 8 | 8 | 7 |
| | 0.001 | 5 | 9 | 9 | 10 | 8 |
| | 0.01 | 5 | 10 | 11 | 10 | 8 |
| | 0.1 | 4 | 10 | 10 | 9 | 8 |
| | 0.5 | 3 | 7 | 8 | 8 | 7 |

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Table 4: Combination of (A) amide with (E) colloid-aggregating agent

The number of days for rose being preserved

| | | Concentration of Sugar-based fatty acid amide (% by weight) | | | | |
|---|--------|---|--------|-------|------|-----|
| | | 0 | 0.0001 | 0.001 | 0.01 | 0.1 |
| Concentration of the aluminum sulfate 13-14H ₂ O (k by weight) | 0 | 3 | 3 | 4 | 4 | 3 |
| | 0.0001 | 3 | 8 | 9 | 9 | 8 |
| | 0.001 | 4 | 8 | 10 | 10 | 9 |
| | 0.01 | 5 | 9 | 11 | 11 | 9 |
| | 0.1 | 4 | 9 | 11 | 10 | 9 |
| | 0.5 | 2 | 8 | 10 | 9 | 8 |

Table 5: Combination of (A) amide with (F) preservative

The number of days for rose being preserved

| | | Concentration of Sugar-based fatty acid amide (% by weight) | | | | |
|---|--------|---|--------|-------|------|-----|
| | | 0 | 0.0001 | 0.001 | 0.01 | 0.1 |
| Concentration of the Proxel (k by weight) | 0 | 3 | 3 | 4 | 4 | 3 |
| | 0.0001 | 3 | 7 | 8 | 8 | 7 |
| | 0.001 | 3 | 9 | 9 | 8 | 8 |
| | 0.01 | 4 | 9 | 9 | 10 | 8 |
| | 0.1 | 2 | 9 | 10 | 9 | 8 |
| | 0.5 | 1 | 7 | 8 | 8 | 7 |

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6. I hereby declare that all statements made herein of my own knowledge are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: June 20, 2007By: Tadayuki Suzuki

Tadayuki SUZUKI

Employee of

KAO CORPORATION

Table 24

| | Plant hormone (C) | Surfactant (A) | The number of days for the flowers being preserved | | |
|---------------------|-----------------------|-------------------------------------|--|-----------|------|
| | | | chrysanthemum | carnation | rose |
| Inventive product | Gibberellin(GA3) 1ppm | Decyl polyglucoside 1ppm | 11 | 11 | 10 |
| | Gibberellin(GA3) 1ppm | Decyl polyglucoside 10ppm | 12 | 12 | 12 |
| | Gibberellin(GA3) 1ppm | Decyl polyglucoside 100ppm | 11 | 12 | 12 |
| | Gibberellin(GA3) 1ppm | Sucrose fatty acid ester 1ppm | 11 | 11 | 10 |
| | Gibberellin(GA3) 1ppm | Sucrose fatty acid ester 10ppm | 12 | 12 | 10 |
| | Gibberellin(GA3) 1ppm | Sucrose fatty acid ester 100ppm | 11 | 10 | 9 |
| | Gibberellin(GA3) 1ppm | Sorbitan fatty acid ester 1ppm | 11 | 11 | 11 |
| | Gibberellin(GA3) 1ppm | Sorbitan fatty acid ester 10ppm | 12 | 12 | 11 |
| | Gibberellin(GA3) 1ppm | Sorbitan fatty acid ester 100ppm | 11 | 11 | 9 |
| | Gibberellin(GA3) 1ppm | Sugar-based fatty acid amide 1ppm | 10 | 9 | 9 |
| | Gibberellin(GA3) 1ppm | Sugar-based fatty acid amide 10ppm | 10 | 10 | 10 |
| | Gibberellin(GA3) 1ppm | Sugar-based fatty acid amide 100ppm | 11 | 10 | 10 |
| | Kinetin 1ppm | Sorbitan fatty acid ester 10ppm | 9 | 9 | 8 |
| | 2,4-D 10ppm | Sorbitan fatty acid ester 10ppm | 8 | 8 | 8 |
| | Tap water | | 5 | 5 | 3 |
| Comparative product | Chrysal 2% | | 7 | 7 | 5 |
| | Gibberellin(GA3) 1ppm | | 4 | 4 | 3 |
| | Kinetin 1ppm | | 4 | 4 | 3 |
| | 2,4-D 10ppm | | 3 | 3 | 3 |
| | | Decyl polyglucoside 10ppm | 5 | 5 | 4 |
| | | Sucrose fatty acid ester 10ppm | 5 | 5 | 4 |
| | | Sorbitan fatty acid ester 10ppm | 5 | 5 | 4 |
| | | Sugar-based fatty acid amide 10ppm | 5 | 4 | 4 |

Table 25

| | Germicide, fungicide and preservative (F) | Surfactant (A) | The number of days for the flowers being preserved | | |
|---------------------|---|-------------------------------------|--|-----------|------|
| | | | chrysanthemum | carnation | rose |
| Inventive product | Proxel 200ppm | Decyl polyglucoside 1ppm | 9 | 9 | 8 |
| | Proxel 200ppm | Decyl polyglucoside 10ppm | 10 | 10 | 9 |
| | Proxel 200ppm | Decyl polyglucoside 100ppm | 10 | 10 | 9 |
| | Proxel 200ppm | Sucrose fatty acid ester 1ppm | 9 | 9 | 8 |
| | Proxel 200ppm | Sucrose fatty acid ester 10ppm | 10 | 10 | 9 |
| | Proxel 200ppm | Sucrose fatty acid ester 100ppm | 9 | 9 | 9 |
| | Proxel 200ppm | Sorbitan fatty acid ester 1ppm | 10 | 10 | 9 |
| | Proxel 200ppm | Sorbitan fatty acid ester 10ppm | 11 | 10 | 10 |
| | Proxel 200ppm | Sorbitan fatty acid ester 100ppm | 10 | 10 | 9 |
| | Proxel 200ppm | Sugar-based fatty acid amide 1ppm | 10 | 9 | 9 |
| | Proxel 200ppm | Sugar-based fatty acid amide 10ppm | 10 | 10 | 9 |
| | Proxel 200ppm | Sugar-based fatty acid amide 100ppm | 11 | 10 | 10 |
| | 8-hydroxyquinoline 500ppm | Sorbitan fatty acid ester 10ppm | 9 | 10 | 9 |
| | Didecyl dimethyl ammonium chloride 5ppm | Sorbitan fatty acid ester 10ppm | 8 | 8 | 8 |
| Comparative product | Tap water | | 5 | 5 | 3 |
| | Chrysal 2% | | 7 | 7 | 5 |
| | Proxel 200ppm | | 5 | 4 | 4 |
| | 8-hydroxyquinoline 500ppm | | 4 | 4 | 3 |
| | Didecyl dimethyl ammonium chloride 5ppm | | 4 | 4 | 3 |
| | | Decyl polyglucoside 10ppm | 5 | 5 | 4 |
| | | Sucrose fatty acid ester 10ppm | 5 | 5 | 4 |
| | | Sorbitan fatty acid ester 10ppm | 5 | 5 | 4 |
| | | Sugar-based fatty acid amide 10ppm | 5 | 4 | 4 |
| | | | | | |